

PATENT ABSTRACTS OF JAPAN

(11)Publication number : **2000-017356**

(43)Date of publication of application : **18.01.2000**

(51)Int.Cl.

C22C 9/00
A61L 9/00

(21)Application number : **10-180377**

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(22)Date of filing : **26.06.1998**

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(54) COPPER ALLOY HAVING PHOTOCATALYSTIC FUNCTION AND ITS PRODUCTION

(57)Abstract:

PROBLEM TO BE SOLVED: To obtain a material simultaneously having bactericidal action and antibacterial properties based on photocatalytic function and furthermore having excellent workability.

SOLUTION: This copper alloy is the one having a compsn. contg., by weight, 0.1 to 7.3% titanium and contg. if need be, one or more kinds among 0.001 to 10% zinc, 0.001 to 3% silicon and 0.001 to 1% silver and whose surface layer contains titanium-contg. oxides. The copper alloy exhibits bactericidal action owing to copper as a base and exhibits antibacterial action based on photocatalytic function owing to the titanium-contg. oxides dispersed into the surface layer. The titanium-contg. oxides can be formed by heating the copper alloy having the above compsn. produced by an ordinary method at 200 to 800°C and preferentially oxidizing titanium. In the case zinc and silicon are incorporated, these elements are preferentially oxidized as well by the above heating to form oxides, zinc exhibits antibacterial action and bactericidal action, and silicon exhibits hydrophilic action. Silver exhibits bactericidal action.

LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's